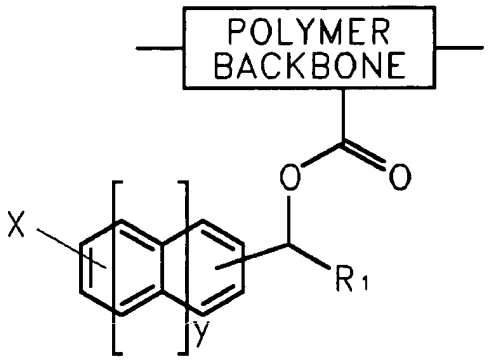
Listing of the Claims:

Claim 1 (Currently amended): A photosensitive polymer having an acid-labile protecting group represented by the formula:



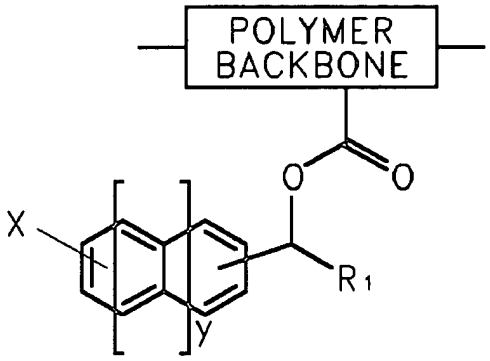
wherein the acid-labile protecting group comprises a fused aromatic ring; R_1 is an alkyl group having from 2 to 4 carbon atoms; X is ~~a halogen~~ fluorine, ~~alkyl~~, or an alkoxy; and y is an integer from 1 to 3.

Claim 2 (Original): The photosensitive polymer of Claim 1, wherein the acid-labile protecting group is bound to a polymer to backbone of the photosensitive polymer.

Claim 3 (Original): The photosensitive polymer of Claim 2, wherein the polymer backbone of the photosensitive polymer comprises acrylate backbone, methacrylate backbone and norbornene backbone.

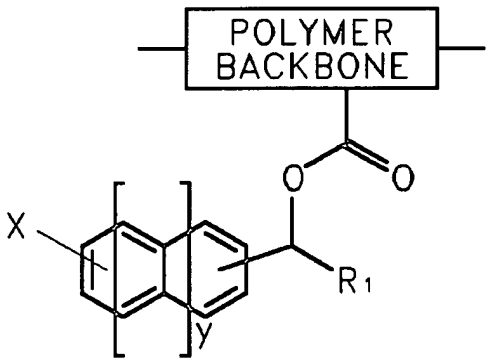
Claim 4 (Previously amended): The photosensitive polymer of claim 1, wherein the fused aromatic ring is a linear ring or branched ring with *y* greater than or equal to 2.

Claim 5 (Currently amended): ~~The photosensitive polymer of Claim 1,~~ A photosensitive polymer having an acid-labile protecting group represented by the formula:



wherein the acid-labile protecting group comprises a fused aromatic ring; R_1 is an alkyl group having from 2 to 4 carbon atoms; X is a halogen, alkyl, or alkoxy; and y is an integer from 1 to 3, wherein the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 200,000.

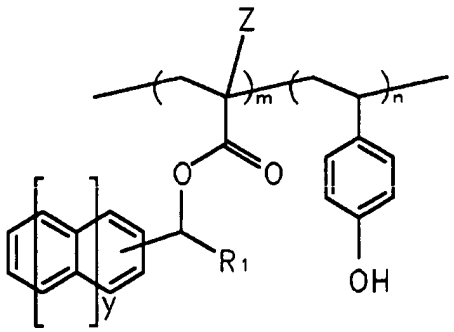
Claim 6 (Currently amended): ~~The photosensitive polymer of Claim 4,~~ A photosensitive polymer having an acid-labile protecting group represented by the formula:



wherein the acid-labile protecting group comprises a fused aromatic ring; R_1 is an alkyl group having from 2 to 4 carbon atoms; X is a halogen, alkyl, or alkoxy; and wherein the fused aromatic ring is a linear ring or branched ring with y being an integer from 2 to 3, and wherein

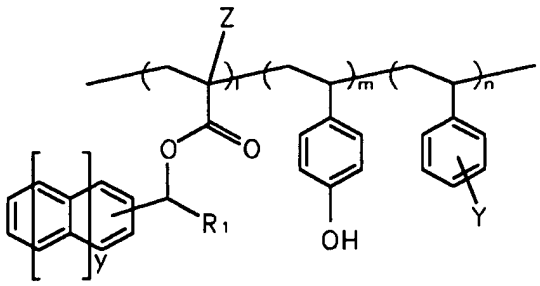
the photosensitive polymer has an average molecular weight ranging from about 10,000 to about 50,000.

Claim 7(Previously amended): A photosensitive polymer having a acid-labile protecting group represented by the following formula:



wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to 3; Z is hydrogen or methyl group; the ratio of m/(m + n) ranges from 0.05 to 0.4; the ratio n/(m + n) ranges from 0.6 to 0.95; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000.

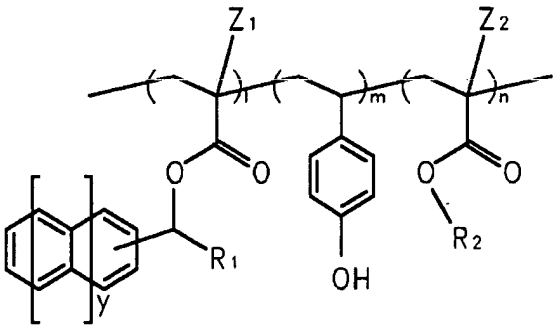
Claim 8 (Previously amended): The photosensitive polymer of Claim 7, wherein the photosensitive polymer has the formula:



wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to

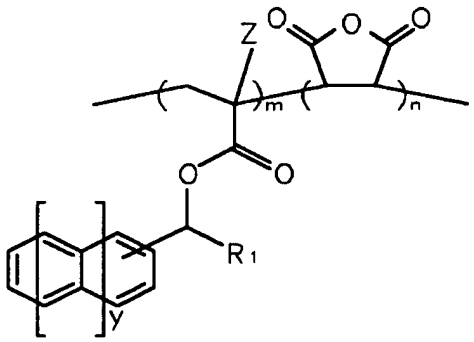
3; Y is hydrogen atom, alkyl, alkoxy, or tert-butoxycarbonyloxyl group; Z is hydrogen or methyl; the ratio of l/(l + m + n) ranges from 0.05 to 0.4; the ratio of m/(l + m + n) ranges from 0.3 to 0.85; the ratio of n/(l + m + n) ranges from 0.1 to 0.3; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000.

Claim 9 (Previously amended): The photosensitive polymer of Claim 7, wherein the photosensitive polymer has the formula:



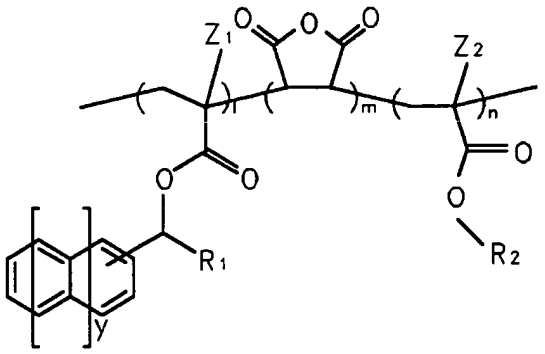
wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to 3; R_2 is hydrogen, methyl, ethyl, or tert-butyl group; Z_1 is hydrogen or methyl group, Z_2 is hydrogen or methyl group; the ratio of l/(l + m + n) ranges from 0.05 to 0.4; the ratio of m/(l + m + n) ranges from 0.6 to 0.95; and the ratio of n/(l + m + n) ranges from 0.1 to 0.3; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to 50,000.

Claim 10 (Previously amended): The photosensitive polymer of Claim 7, wherein the photosensitive polymer has the formula:



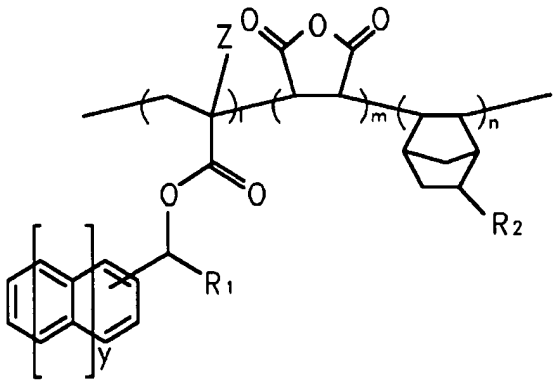
wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to 3; Z is hydrogen or methyl group; the ratio of m/(m + n) ranges from 0.5 to 0.7; and the ratio of n/(m + n) ranges from 0.3 to 0.5; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000.

Claim 11 (Previously amended): The photosensitive polymer of Claim 7, wherein the photosensitive polymer has the formula:



wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to 3; R_2 is hydrogen, methyl, ethyl, or tert-butyl group; Z_1 is hydrogen or methyl group; Z_2 is hydrogen or methyl group; the ratio of l/(l + m + n) ranges from 0.3 to 0.6; the ratio of m/(l + m + n) ranges from 0.3 to 0.5; the ratio of n/(l + m + n) ranges from 0.1 to 0.4; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000.

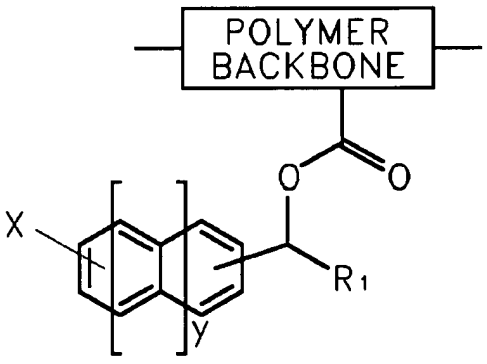
Claim 12 (Previously amended): The photosensitive polymer of Claim 7, wherein the photosensitive polymer has the formula:



wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to 3; R_2 is hydrogen, hydroxyl, carboxyl, or tert-butyl ester group; Z is hydrogen or methyl group; the ratio of l/(l + m + n) ranges from 0.3 to 0.6; the ratio of m/(l + m + n) ranges from 0.3 to 0.5; the ratio of n/(l + m + n) ranges from 0.1 to 0.4; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000.

Claim 13 (Previously amended): A photoresist composition comprising:

(a) A photosensitive polymer having an acid-labile protecting group represented by the formula:



wherein the acid-labile protecting group comprises a fused aromatic ring; R_1 is alkyl group having from 1 to 4 carbon atoms; X is a halogen, alkyl, or alkoxy; and y is an integer from 1 to 3; and

(b) a photoacid generator (PAG).

Claim 14 (Original): The photoresist composition of Claim 13, wherein the acid-labile protecting group is bound to the backbone of the photosensitive polymer.

Claim 15 (Previously amended): The photoresist composition of Claim 13, wherein the fused aromatic ring is a linear ring or branched ring with y greater than or equal to 2.

Claim 16 (Original): The photoresist composition of Claim 13, wherein the photoresist composition comprises from about 0.5 to about 10 weight percent of the photoacid generator based on the weight of the photosensitive polymer.

Claim 17 (Original): The photoresist composition of Claim 13, wherein the photoacid generator is selected from the group consisting of triarylsulfonium salt, diaryliodonium salt, sulfonate, and a mixtures thereof.

Claim 18 (Original): The photoresist composition of Claim 13, further comprising an organic base.

Claim 19 (Original): The photoresist composition of Claim 18, wherein the organic base comprises from about 0.5 to about 50 weight percent based on the weight of the photoacid generator.

Claim 20 (Original): The photoresist composition of Claim 19, wherein the organic based is selected from the tertiary amine group consisting of triethylamine, triethanolamine, triisobutylamine, triisooctylamine, triisodecylamine, and mixtures thereof.

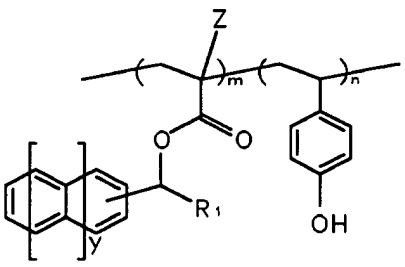
Claim 21 (Previously amended): The photoresist composition of Claim 13, wherein the photosensitivepolymer has an average molecular weight ranging from about 3,000 to about 200,000.

Claim 22 (Previously amended): A photoresist composition comprising:

a photoacid generator; and

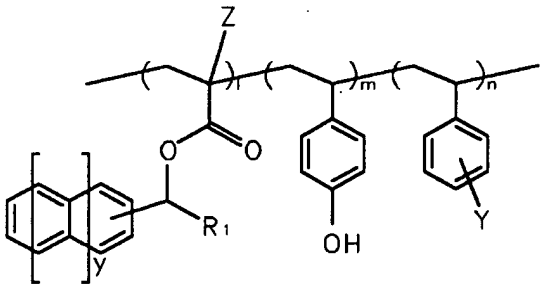
a photosensitive polymer having a acid-labile protecting group, wherein the photosensitive polymer is selected from the group consisting of:

(a) a photosensitive polymer having the formula:



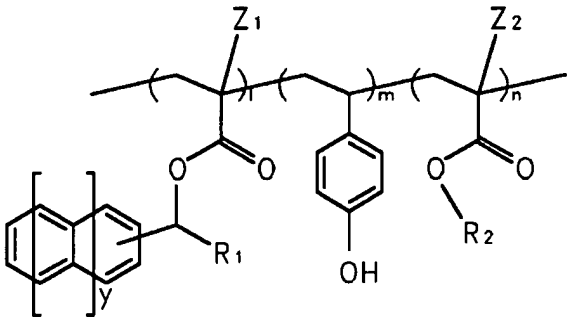
wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to 3; Z is hydrogen or methyl group; the ratio of m/(m + n) ranges from 0.05 to 0.4; the ratio of n/(m + n) ranges from 0.6 to 0.95; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000.

(b) a photosensitive polymer having the formula:



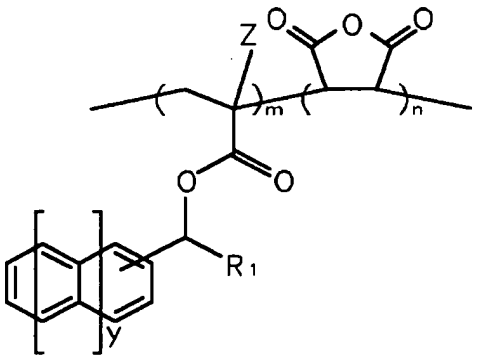
wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; Y is hydrogen, alkyl, alkoxy, or tert-butoxycarbonyloxyl group; y is an integer from 1 to 3; Z is hydrogen or methyl; the ratio of l/(l + m + n) ranges from 0.05 to 0.4; the ratio of m/(l + m + n) ranges from 0.3 to 0.85; the ratio of n/(l + m + n) ranges from 0.1 to 0.3; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000;

(c) a photosensitive polymer having the formula:



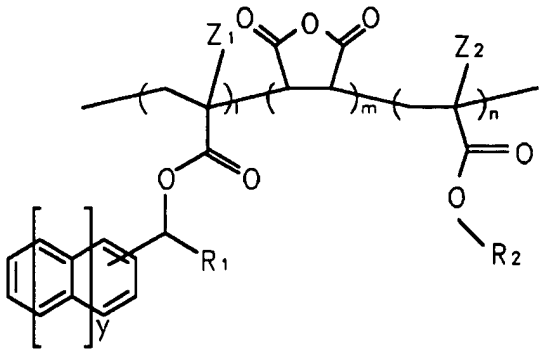
wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; R_2 is hydrogen, methyl, ethyl ,or tert-butyl group; y is an integer from 1 to 3; Z_1 is hydrogen or methyl group; Z_2 is hydrogen or methyl group; the ratio of l/(l + m + n) ranges from 0.05 to 0.4; the ratio of m/(l + m + n) ranges from 0.3 to 0.85; and the ratio of n/(l + m + n) ranges from 0.1 to 0.3; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000;

(d) a photosensitive polymer having the formula:



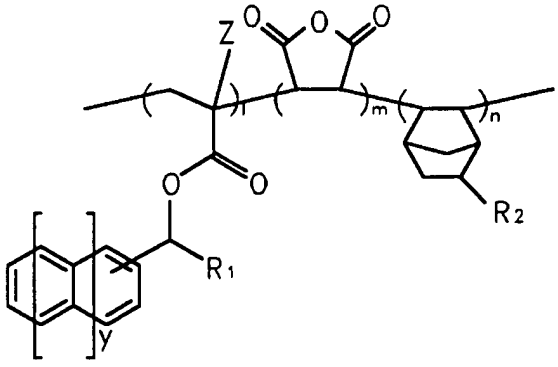
wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; y is an integer from 1 to 3; Z is hydrogen or methyl group; the ratio of m/(l + m + n) ranges from 0.5 to 0.7; and the ratio of n/(n + m + n) ranges from 0.3 to 0.5; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000;

(e) a photosensitive polymer having the formula:



wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; R_2 is hydrogen, methyl, ethyl ,or tert-butyl group; y is an integer from 1 to 3; Z_1 is hydrogen or methyl group; Z_2 is hydrogen or methyl group; the ratio of l/(l + m + n) ranges from 0.3 to 0.6; the ratio of m/(l + m + n) ranges from 0.3 to 0.5; and the ratio of n/(l + m + n) ranges from 0.1 to 0.4; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000;

(f) a photosensitive polymer having the formula:



wherein R_1 is hydrogen or alkyl group having from 1 to 4 carbon atoms; R_2 is hydrogen, hydroxyl, carboxyl, or tert-butyl ester group; y is an integer from 1 to 3; Z is hydrogen or methyl group; the ratio of l/(l + m + n) ranges from 0.3 to 0.6; the ratio of m/(l + m + n) ranges from 0.3 to 0.5; the ratio of n/(l + m + n) ranges from 0.1 to 0.4; and the photosensitive polymer has an average molecular weight ranging from about 3,000 to about 50,000.

Claim 23 (Previously amended): The photoresist composition of Claim 21, further comprising a photoacid generator, wherein the photoacid generator is selected from the group consisting of triarylsulfonium salt, diaryliodonium salt, sulfonate, and mixtures thereof.

Claim 24 (Previously amended): The photoresist composition of Claim 22, further comprising an organic base, wherein the organic base comprises from about 0.5 to about 50 weight percent based on the weight of the photoacid generator.